Bangalore Water Supply and Sewerage Board

Tender Document for the The construction of compound wall around the BDA allotted CA site No. 03, 8th block Banashankari 6th stage BDA layout

TENDER REFERENCE:	:	The construction of compound wall around the BDA allotted CA site No. 03, 8th block Banashankari 6th stage BDA layout. IFT No.BWSSB/EE(DCW)/AEE(DCW)-1/AE/ 641/25-26 Dt:12 - 12-2025
LAST DATE AND TIME FOR RECEIPT OF TENDERS	:	24.12.2025 @ 15.00hrs
TIME AND DATE OF OPENING OF TENDERS	:	26.12.2025 @ 16.00hrs
PLACE OF OPENING OF TENDERS	:	Office of the *Executive Engineer(Deposit Contribution works)* Bangalore Water Supply & Sewerage Board *Suvarana Bhavana,Malleshwaram 18th cross,* *Bangalore -560012*
ADDRESS FOR COMMUNICATION	:	Office of the *Executive Engineer(Deposit contribution works)* Bangalore Water Supply & Sewerage Board *Suvarana Bhavana, Malleshwaram 18th cross,* *Bangalore -560012*

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BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Office of the Executive Engineer *Deposit Contribution works*, Division, Suvarana Bhavana, Malleshwaram 18th Cross, BWSSB, BANGALORE – 560 012
Website **www.kppp.gov.in**

INVITATION FOR TENDER (IFT)

(Through KPPP Portal Only)

IFT No.: BWSSB/EE(DCW)/AEE(DCW-1) /AE/641 /2025-26 DATED: 12 - 12-2025

1. The ***Executive Engineer (DCW)*** invites tender from eligible tenderers, for the construction of work detailed in the Table below through KPP Portal process with two stages tender procedure in line with the Rule28 of the KTPP Act. The details regarding their qualification to take the tender (as detailed in ITT Clause 4) and the price tender shall be uploaded in the website of the e-procurement wizard. Technical details will be opened on the date and time mentioned in IFT clause 5 and evaluated. The price tender of the Tenderer, who is found to be qualified to execute the tendered works, will be opened on the date notified later. The Tenderers are advised to note the minimum qualification criteria specified in Clause 3 of the Instructions to Tenderers (ITT) to qualify for award of the contract.

2. Tender documents may be downloaded through the KPP portal which will link to kpp portal from 16/**12/2025 to 24/ 12/ 2025**, on payment of a non-refundable fee indicated in the Table below, using any of these forms of OTC,NEFT, DEBIT CARD and CREDIT CARD through KPP portal only**.** Interested tenderers may obtain further information at the Office of KPP portal. Tenderers will be issued a password and authorized for accessing the tender document in the website with URL: **www.kppp.gov.in**

3. The Bidders can download the e-tender document using their user ID – password, by accessing **www.kppp.gov.in** where electronic tender form is provided. Additional information related to e-tender process can be obtained through the above mentioned website. The electronic tender will be operated as Two stage Tender system by opening the Technical details first and financial portion of the eligible tenderers later.

4. Tenders must furnish Earnest Money Deposit specified for the work in the Table below. Earnest Money Deposit will have to be paid through any one of the forms OTC,NEFT, DEBIT CARD and CREDIT CARD through e-portal only.

Sl. No	Name of work	Approx. Amount put to tender	E.M.D in Rs.	Period of completion	Eligibility Criteria during last 5 years (2020-21,2021-2022, 2022-23,2023-24 & 2024-25)	
					Turnover (in all classes Civil of Engineering works) at least in two financial years an average annual financial turnover of Rs. in Lakhs	Performance & Work Qualification
1	2	3	4	5	6	7
1	The construction of compound wall around the BDA allotted CA site No. 03, 8th block Banashankari 6th stage BDA layout.	Rs.24,00,000 /-	**Rs 50,000/-**	**06 months**	Rs.24,00,000/-	As per Section of 3 of ITT

5. The last date for uploading of completed tender document is on 24 **/ 12 /2025**upto **1500 hrs.**

6. The bids will be opened at the office mentioned in para no.12 on 26 **/ 12 /2025** at **1600 hrs** in the presence of bidders or their authorized representatives. If the bid opening day remains as public holiday, Bids will be opened on the next working day at the original stipulated time.

7. Bidders can access tender documents from the website and upload the required details; those are mentioned in different sections in the bid document in to electronic tender box on the website. Scanned documents those are required to be furnished as per Section 2, 3 & 4 of the bid document shall be submitted through KPP Portal preferably in **PDF** format for clear vision.

8. The EMD of the tender once paid will not be refunded.

9. The successful bidder would be required to give performance **Bank guarantee of 5%** of the contract amount plus additional security for unbalanced bid amount from a Nationalized / Scheduled Indian Bank, with jurisdiction at Bangalore as specified in the clause no.29 of ITT, towards guarantee for completion of work within the stipulated period.

10. Applications / requisitions from joint venture Firms are not acceptable.

11. Bangalore Water Supply and Sewerage Board reserve the right to cancel or annul the entire or part of this process of invitation at any time without assigning any reason.

12. For any additional information regarding the above tender, the firms who are interested to quote, may contact office of the undersigned at the office address given below on all working days during office hours 1030 hours to 1700 hours.

13. Bidder has to upload the Form of Tender.

14. List of documents to support qualification of bidder is to be uploaded to the KPP-portal website **www.kppp.gov.in**

15. Bidders shall submit offers that comply with the requirements of the bid document, **including the basic technical design as indicated in the drawing and specifications**. Alternatives will not be considered. The attention of the bidders is drawn to clause 23 regarding the rejection of the bids, which are not substantially responsive to the requirement of the bid document.

16. Contractors should have registration in KPWD of State Government organization, public sector under takings, other state Governments and the documentary evidence towards the same shall be furnished

17. Other details can be read from the tender documents.

18. Third party will be nominated by BWSSB.

-Sd/-
Executive Engineer (Deposit Contribution Works)
BWSSB.

SECTION 2: INSTRUCTIONS TO TENDERERS (ITT)

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A. General

1. Scope of Tender

1.1 The Executive Engineer (Referred to as Employer in these documents) invites tenders from eligible tenderers, for the construction of works (as defined in these documents and referred to as "the works") detailed in the Table given in the Invitation for Tenders (IFT). The tenderers may submit tenders for any or all of the works detailed in the table given in IFT.

2. Eligible Tenderers

2.1 Tenderers shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Government of Karnataka

2.2 Tenders from Joint ventures are not acceptable.

3.Qualification of the Tenderer:

3.1 All tenderers shall provide the requested information accurately and in sufficient detail in Section 3: Form of Tender and Qualification information.

3.2 To qualify for award of this contract, each tenderer in its name should have in the last five years i.e. (2020-2021 to 2024-2025)

(a) achieved in at least two financial years an average annual financial turnover (in all classes of civil engineering construction works only) of Rs.27,82,000/-

(b) satisfactorily completed as prime contractor, at least one similar work of compound wall/fencing work of value not less than Rs.13,91,000/-

3.3 (a) Tenderers who meet the above specified minimum qualifying criteria, will only be qualified, if their available tender capacity is more than the total tender value. The available tender capacity will be calculated as under:

Assessed available tender capacity = (A*N*2.5 - B)> Rs.27,82,000/-

Where,

A = Maximum value of civil engineering works executed in any one year during the last five years *(updated to 2020-21 to 2024-25 price level)* taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the works for which Tenders are invited.

B = Value, at *2024-25* price level, of existing commitments and on-going works to be completed during the next one years

Note: *The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Employer in charge, not below the rank of an Executive Engineer or equivalent*.*

3.3(b)Liquid assets and or availability of credit facilities of not less than Rs.8,35,000/- credit lines/letter of credit/ certification from nationalized / Schedule banks in India for meeting the fund requirement.

3.4 Even though the tenderers meet the above criteria, they are subject to be disqualified if they have:

- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or
- participated in the previous Tender for the same work and had quoted unreasonably high tender prices and could not furnish rational justification.

B. Tender documents

4. Content of Tender documents

4.1 The set of tender documents shall have all the Sections given in Page 2:

4.2 Both the sets should be completed and returned with the tender.

5. Amendment of Tender documents

5.1 Before the deadline for submission of tenders, the Employer may modify the tender documents by issuing addenda.

5.2 Any addendum thus issued shall be part of the tender documents and shall be communicated in writing or by cable to all the purchasers of the tender documents.

5.3 To give prospective tenderers reasonable time in which to take an addendum into account in preparing their tenders, the Employer shall extend as necessary the deadline for submission of tenders, in accordance with Sub-Clause 12.2 below.

C. Preparation of Tenders

6. Documents comprising the Tender

6.1 The tender submitted in e- tender by the Tenderer shall comprise the following:

(a) The Tender (in the format indicated in Section 3).
(b) Earnest Money Deposit;
(c) Priced Bill of Quantities;
(d) Scanned Copies of Qualification Information as per formats given in section 3;

and any other materials required to be completed and submitted by tenderers in accordance with these instructions. **The documents listed under Sections 3, 5 and 8 shall be filled in without exception.**

7. Tender prices

7.1 The contract shall be for the whole works as described in Sub-

Clause 1.1, based on the priced Bill of Quantities submitted by the Tenderer.

7.2 The Tenderer shall fill in rates and prices and line item total (both in figures and words) for all items of the Works described in the Bill of Quantities along with total tender price (both in figures and words).

Items for which no rate or price is entered by the Tenderer will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.

7.3 All duties, taxes, and other levies payable by the contractor under the contract, or for any other cause, shall be included in the rates, prices and total Tender Price submitted by the Tenderer.

7.4 The rates and prices quoted by the Tenderer shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account.

8. Tender validity

8.1 Tenders shall remain valid for a period not less than ninety days after the deadline date for tender submission specified in Clause 12. A tender valid for a shorter period shall be rejected by the Employer as non-responsive.

8.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the tenderers may extend the period of validity for a specified additional period. The request and the tenderers' responses shall be made in writing or by cable. A tenderer may refuse the request without forfeiting his earnest money deposit. A tenderer agreeing to the request will not be required or permitted to modify his tender, but will be required to extend the validity of his earnest money deposit for a period of the extension, and in compliance with Clause 9 in all respects.

9. Earnest money deposit

9.1 The Tenderer shall furnish, as part of his tender, earnest money deposit in the amount as shown in column 4 of the Table of IFT for this particular work. EMD can be paid through OTC, NEFT, DEBIT CARD and CREDIT CARD through KPPP Portal only.

9.2 Instruments having fixed validity issued as earnest money deposit for the tender shall be valid for 45 days **beyond** the validity of the tender.

9.3 Any tender not accompanied by an acceptable earnest money deposit and not secured as indicated in Sub-Clauses 9.1 and 9.2 above shall be rejected by the Employer as non-responsive.

9.4 The earnest money deposit of unsuccessful tenderers will be returned within 30 days of the end of the tender validity period specified in Sub-Clause 8.1.

9.5 The earnest money deposit of the successful Tenderer will be discharged when the Tenderer has signed the Agreement and furnished the required Performance Security.

9.6 The earnest money deposit may be forfeited:

(a) if the Tenderer withdraws the Tender after tender opening during the period of tender validity;
(b) if the Tenderer does not accept the correction of the Tender Price, pursuant to Clause 19; or
(c) in the case of a successful Tenderer, if the Tenderer fails within the specified time limit to
(i) sign the Agreement; or
(ii) furnish the required Security deposit

10. Format and signing of Tender

10.1 The completed bid comprising of documents indicated in ITB 12, should be uploaded in the e-procurement wizard of Government of Karnataka through "e-portal" along with scanned copies of requisite certificates those are mentioned in different sections in the bid document and EMD can be paid through OTC, NEFT, DEBIT CARD and CREDIT CARD through e-portal only

10.2 All the documents should be uploaded to the KPPP portal. Tenderer should take a print out of the declaration letters provided in the website on company letter head and should sign, stamp and upload the same to the e-procurement wizard.

10.3 Deleted.

D. Submission of Tenders

11. **Up-loading and Submission of tenders**

11.1 The tenders should be uploaded only through KPPP portal system. Tender should contain

A. Technical tender consisting of following:

a. All the documents with required details in prescribed format: those are mentioned in different sections in the Tender. Form of Tender, Declaration statement regarding Customs/ Excise duty exemption for materials/ construction equipment brought to site as mentioned in Section 2, etc., shall be downloaded, filled with required details, signed, scanned & uploaded to the KPPP portal website **www.kppp.gov.in** on or before the time and date indicated in notification /Section I IFT.

b. **Tender Security**: Tender security can be paid in the form of OTC,NEFT,DEBIT CARD,CREDIT CARD in KPP Portal of Govt. of Karnataka

The above documents along with notarized copies of documentary evidences as indicated in Section –II ITT, Section –II Qualification information & Section IV Forms of Tender shall be scanned and uploaded to the website compulsorily, failing which tender will be rejected in view of incomplete bid document and

B. **Financial Tender consisting of Bill of Quantities (file name: BOQ.xls)** The tenderer shall down load the bill of quantities and key in the rates (in figures only) in the Bill of Quantities sheet and upload the same file on to the website on or before the time and date indicated in notification / Section –I IFT

In case of failure of the tenderer to upload the same within stipulated time ie., **Dated:-/12 /2025.** , their tender will be rejected**.**

Note:

1. URL of the Website for tender submission through KPP Portal & Address For uploading of Tender security are as follows:

   i **www.kppp.gov.in**

The details related to submission of tenders, downloading / uploading of documents or other details are available in the help wizard, Vendor manual & FAQ of above website. The same is provided along with sample formats in Annexure –I of the Bid document for ready reference.

11.2 Deleted.

11.3 Unique Identification Number will be automatically generated by the server with time –stamp and sent to the account of the bidder as an acknowledgment after bidder finally uploads the bids.

11.4 Deleted.

12. Deadline for submission of the Tenders

12.1 Tenders must be received by the Employer at the address specified above no later than **/2025**. In the event of the specified date for the submission of tenders being declared a holiday for the Employer, the tenders will be received up to the appointed time on the next working day.

12.2The Employer may extend the deadline for submission of tenders by issuing an amendment in accordance with Clause 5, in which case all rights and obligations of the Employer and the Tenderers previously subject to the original deadline will then be subject to the new deadline.

13. Late Tenders

13.1 Any Tender received by the Employer after the deadline prescribed in Clause 12 will be returned unopened to the Tenderer.

14. Modifications and Withdrawal of Tenders

14.1 Tenderers may “modify” and “withdraw” their tenders multiple numbers of times, until the dead line for submission of tenders by operating the relevant provision made in KPP Portal. If the Tenderer withdraws the tender before the deadline for submission of tenders and later if he is interested to submit the tender once again, may do so within the stipulated date & time as mentioned in Clause 12. In this case within the stipulated date and time, the tenderer can

once again submit the requisition to the officer inviting tenders for access to withdrawn tender document for resubmission. For this tenderer need not make any additional payment towards the cost of tender document. Communication of modification / withdrawal by other means will not be accepted.

14.2 Deleted

14.3 No Tender may be modified after the deadline for submission of Tenders.

14.4 Withdrawal or modification of a Tender between the deadline for submission of Tenders and the expiration of the original period of Tender validity specified in Clause 8.1 above or as extended pursuant to Clause 8.2 may result in the forfeiture of the earnest money deposit pursuant to Clause 13.

14.5 Tenderers may only offer discounts for indivdual items by simply modifying the quoted unit price in the Bill of Quantities. Also, Tenderer may enter their overall discount, at specified location in the Bill of Quantities only, by submitting tender modifications in accordance with this clause. Communication of discount by other means will no be accepted.

E. Tender opening and evaluation

15. Tender opening

15.1 The Employer will open all the Tenders received (except those received late), including modifications made pursuant to Clause 14, in the presence of the Tenderers or their representatives who choose to attend at 1600 hours on the date and the place specified in Clause 12. In the event of the specified date of Tender opening being declared a holiday for the Employer, the Tenders will be opened at the appointed time and location on the next working day.

15.2 "**WITHDRAWAL**" proposal submitted pursuant to clause 14 shall be read out first and their bids shall not be opened

15.3 The Tenderers' names, the Tender prices, the total amount of each Tender, any discounts, Tender modifications and withdrawals, the presence or absence of Tender security, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening. No Tender shall be rejected at Tender opening except for the late Tenders pursuant to Clause 13. Tenders [and modifications] sent pursuant to Clause 14 that are not opened and read out at Tender opening will not be considered for further evaluation regardless of circumstances. Late and withdrawn Tenders will be returned un-opened to Tenderers.

15.4 The Employer shall prepare minutes of the Tender opening, including the information disclosed to those present in accordance with Sub-Clause 15.3.

16. Process to be confidential

16.1 Information relating to the examination, clarification, evaluation, and comparison of Tenders and recommendations for the award of a contract shall not be disclosed to Tenderers or any other persons not officially concerned with

such process until the award to the successful Tenderer has been announced. Any effort by a Tenderer to influence the Employer's processing of Tenders or award decisions may result in the rejection of his Tender.

17. Clarification of Tenders

17.1 To assist in the examination, evaluation, and comparison of Tenders, the Employer may, at his discretion, ask any Tenderer for clarification of his Tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Tender shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Tenders in accordance with Clause 19.

17.2 Subject to sub-clause 17.1, no Tenderer shall contact the Employer on any matter relating to its Tender from the time of the Tender opening to the time the contract is awarded. If the Tenderer wishes to bring additional information to the notice of the Employer, it should do so in writing.

17.3 Any effort by the Tenderer to influence the Employer in the Employer’s Tender evaluation, Tender comparison or contract award decisions may result in the rejection of the Tenderers’ Tender.

18. Examination of Tenders and determination of responsiveness

18.1 Prior to the detailed evaluation of Tenders, the Employer will determine whether each Tender (a) meets the eligibility criteria defined in Clause 2; (b) has been properly signed; (c) is accompanied by the required earnest money deposit and; (d) is substantially responsive to the requirements of the Tender documents.

18.2 A substantially responsive Tender is one which conforms to all the terms, conditions, and specifications of the Tender documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the Tender documents, the Employer's rights or the Tenderer's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Tenderers presenting substantially responsive Tenders.

18.3 If a Tender is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

Correction of errors

19.1 Tenders determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
(a) where there is a discrepancy between the rates in figures and in words, the lower of the two will govern; and
(b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.

19.2 The amount stated in the Tender will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Tenderer, shall be considered as binding upon the Tenderer. If the Tenderer does not accept the corrected amount the Tender will be rejected, and the earnest money deposit may be forfeited in accordance with Sub-Clause 9.6 (b).

20. Evaluation and comparison of Tenders

20.1 The Employer will evaluate and compare only the Tenders determined to be substantially responsive in accordance with Clause 18.

20.2 In evaluating the Tenders, the Employer will determine for each Tender the evaluated Tender Price by adjusting the Tender Price as follows:
(a) making any correction for errors pursuant to Clause 19; and
(b) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with Sub Clause 14.5.

20.3 The Employer reserves the right to accept or reject any variation, deviation, or alternative offer. Variations, deviations, and alternative offers and other factors which are in excess of the requirements of the Tender documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Tender evaluation.

F. Award of Contract

21. Award criteria

21.1 Subject to Clause 23, the Employer will award the Contract to the Tenderer whose Tender has been determined to be substantially responsive to the Tender documents and who has offered the lowest evaluated Tender Price, provided that such Tenderer has been determined to be (a) eligible in accordance with the provisions of Clause 2, and (b) qualified in accordance with the provisions of Clause 3.

22. Employer's right to accept any Tender and to reject any or all Tenders

22.1 Notwithstanding Clause 21, the Employer reserves the right to accept or reject any Tender, and to cancel the Tender process and reject all Tenders, at any time prior to the award of Contract, without thereby incurring any liability to the affected Tenderer or Tenderers or any obligation to inform the affected Tenderer or Tenderers of the grounds for the Employer's action.

23. Notification of award and signing of Agreement

23.1 The Tenderer whose Tender has been accepted will be notified of the award by the Employer prior to expiration of the Tender validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter

and in the *Conditions of Contract* called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

23.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 24.
23.3 The Agreement will incorporate all agreements between the Employer and the successful Tenderer. It will be kept ready for signature of the successful Tenderer in the office of Employer within 30 days following the notification of award along with the Letter of Acceptance. Within 20 days of receipt, the successful Tenderer will sign the Agreement and deliver it to the Employer.

23.4 Upon the furnishing by the successful Tenderer of the Security deposit, the Employer will promptly notify the other Tenderers that their Tenders have been unsuccessful.

24. Security deposit

24.1 Within 20 days of receipt of the Letter of Acceptance, the successful Tenderer shall deliver to the Employer a Security deposit in any of the forms given below for an amount equivalent to **5%** of the Contract price :

- Banker's cheque/Demand draft,/Pay Order in favour of Chairman, BWSSB payable at Bangalore OR
- A bank Gaurantee in the form given in Section 10
- The Security deposit provided by the successful Tenderer in the form of Bank Guarantee it shall be issued either by a Nationalised /Scheduled Bank.

24.2 The security deposit if furnished in demand draft can, if requested, be converted to interest bearing securities at the cost of the contractor.

24.3 Failure of the successful Tenderer to comply with the requirements of Sub-Clause 24.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the earnest money deposit.

25. Corrupt or Fraudulent practices

25.1 The GOK requires that the Tenderers/Suppliers/Contractors, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, GOK :
(a) will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
(b) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a GOK contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a GOK contract.
(c)
25.2 Furthermore, Tenderers shall be aware of the provision stated in sub-clause 43.2 of the Conditions of Contract.

SECTION 3:

FORMS OF TENDER, AND QUALIFICATION INFORMATION

TABLE OF FORMS:

- **FORM OF TENDER**
- **QUALIFICATION INFORMATION**
- **LETTER OF ACCEPTANCE**
- **NOTICE TO PROCEED WITH THE WORK**
- **AGREEMENT FORM**

Form of Tender

Description of the Work: The construction of compound wall around the BDA allotted CA site No. 03, 8th block Banashankari 6th stage BDA layout.

Tender

To

Address : Executive Engineer (Deposit Contribution Works)Division,

BWSSB, Suvarna Bhavan,

Malleshwaram, 18th cross,

Bangalore -560 012

GENTLEMEN,

We offer to execute the Works described above in accordance with the Conditions of Contract accompanying this Tender for the Contract Price quoted therein._____

This Tender and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any Tender you receive.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely “Prevention of Corruption Act 1988”.

We hereby confirm that this Tender complies with the Tender validity and Earnest money deposit required by the Tender documents.

We attach herewith our current income-tax clearance certificate.

Yours faithfully,

Authorized Signature:

Name & Title of Signatory: _____

Name of Tenderer _____

Address: ----------

NOTE: This form shall be download, filled and printed on the Company letter head, Signed, Scanned and uploaded. Failure to furnish the signed copy will lead to Non-Responsive Tender.

QUALIFICATION INFORMATION

The following form is to be downloaded, particulars are to be filled, scanned & uploaded by the Bidder, to the KPPP portal of Government of Karnataka wizard **"www.kppp.karnataka.govt.in"** along with the Bid.
Note: The detailed procedure for downloading / uploading the documents will be available in Help wizard, Vendor manual & FAQ of the above mentioned Website.

The information to be filled in by the Tenderer hereunder will be used for purposes of computing Tender capacity as provided for in Clause 3 of the Instructions to Tenderers. This information will not be incorporated in the Contract.

1.1 Constitution or legal status of Tenderer [Attach copy]
Place of Registration _____
(Attach Copy)
Principal place of business: _____

1.2 Total value of of works executed and payments received in the last five years (in Rs. Lakhs)

2020 -21 _____
2021 –22_____
2022 – 23_____
2023 – 24_____
2024 – 25_____

1.3 Work performed as Prime Contractor (in the same name) on works of similar nature over during the five years specified in 1.2 above.

Project Name	Name of Employer	Description of Work	Contract Number	Value of contract Rs. Lakhs	Date of issue of work order	Specified period of completion	Actual date of completion	Remarks explaining reasons for delay in completion of work
1	2	3	4	5	6	7	8	9

1.4 Information on works for which Tenders have been submitted and works which are yet to be completed as on the date of this Tender.
(A) Existing commitments and on-going works:

Description of Work	Place & State	Contract No. & Date	Name and Address of Employer	Value of Contract (Rs. lakhs)	Stipulated period of completion	Value of works[1] remaining to be completed (Rs. lakhs)	Anticipated date of completion
1	2	3	4	5	6	7	8

[1] Contractor shall enclose /attach all the necessary certificates duly attested by the employer.

(B) Works for which Tenders already submitted:

		Name and Address of Employer	Estimated value of works (Rs. lakhs)	Stipulated Date period of completion	when decision is expected	Remarks if any

1.5. The following items of equipment are considered essential for successfully carrying out the works. The Tenderer should furnish all the information listed below.

Item of Equipment	Requirement		Owned and available Stipulated Date period of completion when decision is expected			Remarks if any
	No.	Capacity	Owned	Number/ Capacity	Age/Condition	

1.6 Reports on the financial standing of the tenderer, such as profit and loss statements and auditor's reports for the last five years;

1.7 Qualification and experience of the key technical and management personnel in permanent employment with the tenderer and those that are proposed to be deployed on this contract, if awarded.

1.8. Name, address, and telephone, telex, and fax numbers of the Tenderers' bankers who may provide references if contacted by the Employer.

1.9 Proposals for subcontracting components of works amounting to more than 20% of the contract price .

Item of Work	Value of Sub-Contract	Identified Sub-Contractor (Name and address)	Experience of similar work [2]

[2] Attach Certificate from the respective Employers (scanned & Uploaded)

FORMAT OF BANKER'S CERTIFICATE /LINE OF CREDIT LETTER [TO BE ISSUED IN THE LETTER HEAD OF THE BANK BRANCH]

Reference Number (Sl No.) Place

Date

To

(Name & Address of the beneficiary)

This is to certify that Mr./ M/s. ..... [name of the customer] having is /their registered/administrative office at.....is a customer of our bank and are engaged in.....(nature of activity). If the .....customer is allotted/awarded with .....(brief details of works], we may extend credit facilities upto Rs..... lakh, to meet his /their working capital requirement towards the execution of the said work order as per Loan policy of the Bank. This credit is valid upto three months from the date of issue, that is upto dd/mm/yyyy.

Sd/-

Name of the Bank, Branch Manger

Address:.....

Letter of Acceptance

(letter head paper of the Employer)

_____[date]

To:

_____[name and address of the Contractor]

Dear Sirs,

This is to notify you that your Tender dated _____ for execution of the _____ [name of the contract and identification number, as given in the Instructions to Tenderers] for the Contract Price of Rupees —— _____ (_____) [amount in words and figures], as corrected and modified in accordance with the Instructions to Tenderers is hereby accepted by our Agency.

You are hereby requested to furnish Security deposit plus additional security for unbalanced tenders in terms of Clause 24.1 of ITT, in the form detailed in Clause 24.1 of ITT for an amount of Rs.————— within 20 days of the receipt of this letter of acceptance valid up to 30 days from the date of expiry of Defects Liability Period i.e. up to ..... and sign the contract, failing which action as stated in Para 24.3 of ITT will be taken.

Yours faithfully,

Authorized Signature
Name and Title of Signatory
Name of Agency

Issue of Notice to proceed with the work

(letter head of the Employer)

————— (date)

To

————————————————— (name and address of the Contractor)

————————————————

————————————————

Dear Sirs:

Pursuant to your furnishing the requisite security deposit as stipulated in ITT Clause 25.1 and signing of the contract agreement for the construction of ————————[name of the contract] a Tender Price of Rs.———————, you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of signatory authorized to sign on behalf of Employer)

Agreement Form

Agreement

This agreement, made the _____day of _____20_____, between_____ _____[name and address of Employer] (hereinafter called "the Employer") of the one part and _____ _____ _____ __ _____[name and address of contractor] (hereinafter called "the Contractor") of the other part.

Whereas the Employer is desirous that the Contractor execute _____ _____ _____[name and identification number of Contract] (hereinafter called "the Works") and the Employer has accepted the Tender by the Contractor for the execution and completion of such Works and the remedying of any defects therein at a contract price of Rupees.....

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:

i) Letter of Acceptance;
ii) Notice to proceed with the works;
iii) Contractor's Tender;
iv) Contract Data;
v) Conditions of contract (including Special Conditions of Contract);
vi) Specifications;
vii) Drawings;
viii) Bill of Quantities; and
ix) Any other document listed in the Contract Data as forming part of the contract.

5. Jurisdiction of Court/Arbitration:
   The sitting of arbitration shall be held at Bangalore only and nowhere else.
6. Dispute of any kind arising out of the contract shall be resolved within the jurisdiction of Bangalore city only and the parties agree and clearly understand that the Courts/Tribunals situated at Bangalore Metropolitan City have exclusive jurisdiction for the redressal of the disputes arising out of the contract and at no other place.
7. The parties further agree and understand that the place or places of issue of bank guarantee other than Bangalore will have no jurisdiction to resolve dispute of any kind relating to enforcement of the bank guarantees submitted by the contractor at Bangalore for the execution of the contract at Bangalore.
8. The contractor shall comply with all the legal requirements in the matter of employment of workmen and provide all safety gadgets to the workmen while working in the hazards place or conditions during the execution of the contract.

9. Contractor shall be fully responsible in the event of death of employee/workmen during the execution of the work and liable to pay adequate compensation to the dependants of employee/workman as per law.
10. On his/their failure, if the Board is made to pay compensation the same shall be recovered by the Board from the contractor out of the amounts due to the contractor or by appropriate legal action.
11. If death of any employees occurs during execution of work due to negligence of contractor, the contract will be liable for termination.
12. In the event of such termination, the employer may consider blacklisting of firm after due notice.
13. In case of any death or accident the contract will be cancelled after following due process.
14. The Board will be entitled to claim exemplary damages from the contractor in case of death of any work man/employees of the contractor in any of the BWSSB works as it damages the reputation of the Board.
15. Precautionary measures such as barricades, red/caution taps along with safety equipments to the labours to be provided during executions as per the memorandum issued by Chairman 3364/31.12.15.
16. The road cutting should be taken up through road cutting machine only. If manual cutting is found the concerned firm/contractor will be penalized.

In witness whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of was hereunto affixed in the presence of: Signed, Sealed and Delivered by the said in the presence of:

Binding Signature of Employer _____

Binding Signature of Contractor _____

SECTION 4: Conditions of Contract

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A. General

1. Definitions

1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Bold letters are used to identify defined terms.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Tender.

Compensation events are those defined in Clause 38 hereunder.

The **Completion Date** is the date of completion of the Works as certified by the Employer in accordance with Sub Clause 46.1.

The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.2 below.

The **Contract Data** defines the documents and other information which comprise the Contract.

The **Contractor** is a person or corporate body whose Tender to carry out the Works has been accepted by the Employer.

The **Contractor's Tender** is the completed Tender document submitted by the Contractor to the Employer.

The **Contract price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; months are calendar months.

A **Defect** is any part of the Works not completed in accordance with the Contract.

The **Defects liability period** is the period named in the Contract Data and calculated from the Completion Date.

The **Employer** is the party who will employ the Contractor to carry out the Works.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The **Initial Contract price** is the Contract Price listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Employer by issuing an extension of time.

Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

Plant is any integral part of the Works which is to have a mechanical, electrical, electronic or chemical or biological function.

The **Site** is the area defined as such in the Contract Data.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Employer.

The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.

A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract which includes work on the Site.

A **Variation** is an instruction given by the Employer which varies the Works.

The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.

2. Interpretation

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Employer will provide instructions clarifying queries about the Conditions of Contract.

2.2 The documents forming the Contract shall be interpreted in the following order of priority:
(1) Agreement
(2) Letter of Acceptance, notice to proceed with the works
(3) Contractor’s Tender
(4) Contract Data
(5) Conditions of Contract
(6) Specifications
(7) Drawings
(8) Bill of quantities and
(9) any other document listed in the Contract Data as forming part of the Contract.

3. Law governing contract

3.1 The law governing the Contract is the Laws of India supplanted by the Karnataka Local Acts.

4. Employer's decisions

4.1 Except where otherwise specifically stated, the Employer will decide contractual matters between the Employer and the Contractor .

5. Delegation

5.1 The Employer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

7. Subcontracting

7.1 Deleted

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer.

9. Personnel

9.1 The Contractor shall employ the technical personnel (of number and qualifications) as may be stipulated by GOK from time to time during the execution of the work. The technical staff so employed shall be available at site as may be stipulated by the Employer.
9.2 If the Employer asks the Contractor to remove a person who is a member of the Contractor’s staff or his work force stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10. Employer’s and Contractor's risks

10.1 The Employer carries the risks which this Contract states are Employer’s risks, and the Contractor carries the risks which this Contract states are Contractor’s risks.

11. Employer's risks

11.1 The Employer is responsible for the excepted risks which are:
(a) rebellion, riot commotion or disorder unless solely restricted to employees of the Contractor or his Sub-Contractors arising from the conduct of the Works; or
(b) a cause due solely to the design of the Works, other than the Contractor’s design; or

(c) any operation of the forces of nature (in so far as it occurs on the Site) which an experienced contractor:
(i) could not have reasonably foreseen; or
(ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures;
(A) prevent loss or damage to physical property from occurring by taking appropriate measures or
(B) insure against such loss or damage

12. Contractor's risks

12.1 All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

13. Queries about the Contract Data

13.1 The Employer will clarify queries on the Contract Data.

14. Contractor to construct the Works

14.1 The Contractor shall construct the Works in accordance with the Specification and Drawings.

15. The Works to be completed by the Intended Completion Date

15.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the program submitted by the Contractor, as updated with the approval of the Employer, and complete them by the Intended Completion Date.

16. Safety

16.1 The Contractor shall be responsible for the safety of all activities on the Site.

17. Discoveries

17.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Employer of such discoveries and carry out the Employer's instructions for dealing with them.

18. Possession of the Site

18.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Contract

Data the Employer is deemed to have delayed the start of the relevant activities and this will be Compensation Event.

19. Access to the Site

19.1 The Contractor shall allow the Employer and any person authorized by the Employer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

20. Instructions

20.1 The Contractor shall carry out all instructions of the Employer which comply with the applicable laws where the Site is located.

B. Time Control

21. Program

21.1 Within the time stated in the Contract Data the Contractor shall submit to the Employer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works.

21.2 The Employer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Employer again at any time. A revised Program is to show the effect of Variations and Compensation Events.

22. Extension of the Intended Completion Date

22.1 The Employer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date.

22.2 The Employer shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Employer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information.

23. Delays ordered by the Employer

23.1 The Employer may instruct the Contractor to delay the start or progress of any activity within the Works.

24. Management meetings

24.1 The Employer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the progress achieved and the plans for remaining work.

24.2 The responsibility of the parties for actions to be taken is to be decided by the Employer either at the management meeting or after the management meeting and stated in writing to be distributed to all who attended the meeting.

C. Quality Control

25. Identifying defects

25.1 The Employer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Employer may instruct the Contractor to search for a Defect and to uncover and test any work that the Employer considers may have a Defect

26. Tests

26.1 If the Employer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

27. Correction of defects

27.1 The Employer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

27.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Employer’s notice.

28. Uncorrected defects

28.1 If the Contractor has not corrected a Defect within the time specified in the Employer’s notice, the Employer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

1

2

3 D. Cost Control

29. Bill of Quantities (BOQ)

29.1 The BOQ shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.

29.2 The BOQ is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the BOQ for each item

30. Variations

30.1 The Employer shall have power to order the Contractor to do any or all of the following as considered necessary or advisable during the progress of the work by him

(a) Increase or decrease of any item of work included in the Bill of Quantities (BOQ);
(b) Omit any item of work;
(c) Change the character or quality or kind of any item of work;
(d) Change the levels, lines, positions and dimensions of any part of the work;
(e) Execute additional items of work of any kind necessary for the completion of the works; and
(f) Change in any specified sequence, methods or timing of construction of any part of the work.

30.2 The Contractor shall be bound to carry out the work in accordance with any instructions in this connection, which may be given to him in writing by the Employer and such alteration shall not vitiate or invalidate the contract.

30.3 Variations shall not be made by the Contractor without an order in writing by the Employer, provided that no order in writing shall be required for increase or decrease in the quantity of an item appearing in the BOQ so long as the work executed conforms to the approved drawings.

30.4 The Contractor shall promptly request in writing the Employer to confirm verbal orders and the officer issuing oral instructions shall confirm it in writing with in 30days, failing which the work shall be carried out as though there is no variation. In case variation is approved, it shall be accompanied by BOQ, failing which the contractor shall be responsible for deviation, if any. Further, approval of the Board has to be obtained for the variation exceeding 5%.

31. Payments for Variations

31.1 Payment for increase in the quantities of an item in the BOQ up to 25% of that provided in the Bill of Quantities shall be made at the rates quoted by the Contractor.

31.2 For quantities in excess of 125% of the tendered quantity of an item as given in the BOQ, the Contractor shall be paid at the rate entered in or derived from in the Schedule of Rates (applicable for the area of the work and current at the time of award of contract) plus or minus the overall percentage of the original tendered rates over the current Schedule of Rates prevalent at the time of award of contract.

31.3 If there is no rate for the additional, substituted or altered item of the work in the BOQ, efforts would be made to derive the rates from those given in the BOQ or the Schedule of Rates (applicable for the area of the work and current at the time of award of contract) and if found feasible the payment would be made at the derived rate for the item plus or minus the overall

percentage of the original tendered rates over the current Schedule of Rates prevalent at the time of award of contract

31.4 If the rates for additional, substituted or altered item of work cannot be determined either as at 35.1 or 35.2 or 35.3 above, the Contractor shall be requested to submit his quotation for the items supported by analysis of the rate or rates claimed, within 7 days.

31.5 If the Contractor's quotation is determined unreasonable, the Employer may order the Variation and make a change to the Contract Price which shall be based on Employer’s own forecast of the effects of the Variation on the Contractor's costs.

31.6 If the Employer decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

31.7 Under no circumstances the Contractor shall suspend the work on the plea of non-settlement of rates for items falling under this Clause.

32. Submission of bills for payment

32.1 The Contractor shall submit to the Employer monthly / stage wise bills of the value of the work completed less the cumulative amount paid previously.

32.2 The Employer shall check the Contractor's bill and determine the value of the work executed which shall comprise of (i) value of the quantities of the items in the BOQ completed and (ii) valuation of Variations and Compensation Events.

32.3 The Employer may exclude any item paid in a previous bill or reduce the proportion of any item previously paid in the light of later information.

33. Payments

33.1 Payments shall be adjusted for deductions for advance payments, other recoveries in terms of the contract and taxes, at source, as applicable under the law. The Employer shall pay the Contractor within 60 days of submission of bill. The Contractor shall be liable to pay liquidated damages for shortfall in progress. For Progress beyond the agreed programme, payment is subject to availability of the grants.

33.2 Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

34. Compensation events

34.1 The following are Compensation events unless they are caused by the Contractor:

(a) The Employer does not give access to a part of the Site by the Site Possession Date stated in the Contract Data.
(b) The Employer orders a delay or does not issue drawings, specifications or instructions required for execution of works on time.
(c) The Employer instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
(d) The Employer gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
(e) The effect on the Contractor of any of the Employer's Risks.
(f) The Employer unreasonably delays issuing a Certificate of Completion.
(g) Other Compensation Events listed in the Contract Data or mentioned in the Contract.

34.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date is extended. The Employer shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

34.3 As soon as information demonstrating the effect of each Compensation event upon the Contractor's forecast cost has been provided by the Contractor, it is to be assessed by the Employer and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed un reasonable, the Employer shall adjust the Contract Price based on Employer's own forecast. The Employer will assume that the Contractor will react competently and promptly to the event.

34.4 The Contractor shall not be entitled to compensation to the extent that the Contractor not having given early warning or not having cooperated with the Employer adversely affects the Employer's interests.

35. Tax

35.1 The rates quoted by the Contractor shall be deemed to be inclusive of the sales and other taxes that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

36. Liquidated damages

36.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the Contract Data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities.

36.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Employer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment of bill.

37. Cost of Repairs:

37.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

38. Completion

38.1 The Contractor shall request the Employer to issue a Certificate of Completion of the Works and the Employer will do so upon deciding that the Work is completed.

39. Taking over

39.1 The Employer shall take over the Site and the Works within seven days of issuing a certificate of Completion.

40. Final account

40.1 The Contractor shall supply to the Employer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Employer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 90 days of receiving the Contractor's account if it is correct and complete. If it is not, the Employer shall issue within 90 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Employer shall decide on the amount payable to the Contractor and make payment within 60 days of receiving the Contractor’s revised account.

41. As built drawings and /or Operating and Maintenance Manuals

41.1 If “as built”[3] Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

41.2 If the Contractor does not supply the Drawings by the dates stated in the Contract Data, or they do not receive the Employer’s approval, the Employer

[3] Completion Drawings

shall withhold the amount stated in the Contract Data from payments due to the Contractor.

42. Termination

42.1 The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.

42.2 Fundamental breaches of Contract include, but shall not be limited to the following:

(a) the Contractor stops work for 45 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Employer;
(b) the Employer instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 60 days;
(c) The Contractor becomes bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
(d) a payment due to the Contractor is not paid by the Employer within 90 days of the date of the submission of the Bill by Contractor;
(e) the Employer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Employer;
(f) the Contractor does not maintain a security which is required;
(g) the Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and
(h) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in the executing the Contract.
For the purpose of this paragraph : “corrupt practice” means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution. “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.”
42.3 When either party to the Contract gives notice of a breach of contract to the Employer for a cause other than those listed under Sub Clause 49.2 above, the Employer shall decide whether the breach is fundamental or not.

42.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

42.5 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible.

43. Payment upon Termination

43.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Employer shall prepare bill for the value of the work done less advance payments received up to the date of the bill, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.

43.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Employer shall prepare bill for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract, and less taxes due to be deducted at source as per applicable law and make payment accordingly.

44. Property

44.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor’s default.

45. Release from performance

45.1 If the Contract is frustrated by any event entirely outside the control of either the Employer or the Contractor the Employer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made

F. Special Conditions of Contract

1. Labour :

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Employer, deliver to the Employer a return in detail, in such form and at such intervals as the Employer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Employer may require.

2. Compliance with labour regulations :

During continuance of the contract, the Contractor and his sub contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws

that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, Employer shall have the right to deduct any money due to the Contractor including his amount of security deposit. The Employer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

3. Protection of Environment:

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation. During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

SECTION 5:

CONTRACT DATA

CONTRACT DATA

Items marked "N/A" do not apply in this Contract.

The following documents are also part of the Contract: Clause Reference

The Employer is :
Name: ***Executive Engineer, (Deposit contribution)*** [1.1]

Address: BWSSB, Suvarna Bhavan, Malleshwarm, 18th cross Banagalore –560 055 .

Name of authorized Representative: _____
_____

The name and identification number of the Contract is the construction of compound wall around the BDA allotted CA site No. 03, 8th block Banashankari 6th stage BDA layout_

The Works consist of earth work excavation, RCC, Steel fabrication work , Size Stone and solid Block Masonry, Plastering painting and miscellaneous works of Building construction.

The start date shall be the date of issue of notice to proceed with the work. [1.1]

The Intended Completion Date for the of the Works is **6 months** [15,22][1]

The following documents also form part of the Contract:

The Site Possession Date is: ...One week after issue of work Order..... [18]

The Site is located at **CA site No. 03, 8th block Banashankari 6th stage BDA layout**, Bangalore [1.1]

The Defects Liability Period is **__365____** days [27]

The liquidated damages for the whole of the works are at Rs. ***0.1%*** per day of the contract value [36]

The maximum amount of liquidated damages for the whole of the works is ten percent of final contract price. [36]

[1] Mention the date at the time of agreement

The date by which “as-built” drawings (in scale **1:100**) in 5 sets are required is within 30 days of issue of certificate of completion of Whole or Section of the Work as the case may be. [41]

The amount to be withheld for failing to supply “as built” drawings and supply of Operation and Maintenance Manuals by the date required is Rs. 50,000.00 [48]

The following events shall also be fundamental breach of the contract : [42.2]

1. The contractor has contravened Sub-clause 7.1 and Clause 9 of CC.

The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be ***30*** percent. [43.1]

SECTION 6:
TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

I GENERAL

1. SCOPE OF WORK.

The scope of work under this Contract includes the following:The construction of compound wall /fencing works

CONCRETE WORK

GENERAL

1.1 Standard

Work shall be carried out to Indian Standards and Code of Practices, in absence International Standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies /conflict noticed shall be directed to the Incharge for his direction / approval. However as a general rule more stringent specification shall take precedence.
Specification for Ordinary and low heat, portland cement Specification for 43 grade ordinary portland cement Specification for 53 grade ordinary portland cement

(1)	IS 269	Specification for Ordinary and low heat, Portland cement
(2)	IS 8112	Specification for 43 grade ordinary Portland cement
(3)	IS 12269	Specification for 53 grade ordinary Portland cement
(4)	IS 383	Specification for Coarse and fine aggregates from natural sources for concrete
(5)	IS 456	Code of practice for plain and reinforced concrete
(6)	IS 460	Specification for test sieves (Part I, II & III)
	i)	Wire cloth test sieve
	ii)	Perforated plate test sieve
	ii)	Method of examination of test sieves
(7)	IS 515	Specification for natural and manufactured aggregates from natural sources for concrete.
(8)	IS 516	Method of test for strength of concrete
(9)	IS 875 (Part I, II & III)	Design loads for building structure.
(10)	IS 1199	Method of Sampling and analysis of concrete
(11)	IS 1791	Batch type concrete mixers.
(12)	IS 1893	Earthquake resistant design.
(13)	IS 2386	Method of test for aggregate for concrete (Part I, II & III)

	i)	Particle size and shape
	ii)	Estimation of deleterious materials and organic impurities
	iii)	Specific gravity, density, voids, absorption and bulking.
(14)	IS 2505	General requirements for concrete vibrators.
(15)	IS 2645	Specification for Integral cement water proofing compound.
(16)	IS 3025	Method of Sampling and test (Physical and Chemical for water)
(17)	IS 4326	Code of practice for earthquake resistant design and construction of building.
(18)	IS 4926	Specification for ready mixed concrete.
(19)	IS 7861	Code of practice for extreme weather concreting
	i)	Recommended practice for cold weather concreting
	ii)	Recommended practice for cold weather concreting
(20)	IS 9103	Specification for admixture for concrete
(21)	IS 12118	(Part I) Specification for two parts polysulphide based sealant: general requirements
(22)	SP 23	Hnadbook on concrete mix
(23)	SP 24	Explanatory handbook on Indian Standards code for plain and reinforced concrete (IS 456)
(24)	SP 27	Handbook of method of measurement of building works.

REINFORCEMENT WORK

1.0 GENERAL

1.1 Standard

Work shall be carried out to Indian Standards and Code of Practices. In absence International Standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies/ conflict noticed shall be directed to the Incharge for his direction/approval. However as a general rule more stringent specification shall take precedence.

1.	IS 226	Specification for steel standard quality.
2.	IS 228	Methods for chemical analysis of steels.
3.	IS 280	Specification for mild steel wire for general

		engineering purpose.
4.	IS 432	Specification for mild steel and medium tensile steel burn and hard drawn steel wires for concrete requirement.
	Part 1	Mild steel and Medium tensile steel bars.
	Part 2	Hard drawn steel wire.
5.	IS 456	Code of practice for construction and design of reinforced concrete.
6.	IS 816	Code of practice for use of metal are welding for general construction in mild steel.
7.	IS 961	Specification for structural steel: high tensile steel bars
8.	IS 1566	Hard drawn steel wire fabric for concrete reinforcement.
9.	IS 1599	Method of Bend test
10.	IS 1642	General requirements for fire protection.
11.	IS 1785	Cold drawn stress relieved wire (part I)
12.	IS 1786	Specification for high strength deformed steel bars and wires for concrete reinforcement.
13.	IS 2751	Code of practice for welding of MS bars.
14.	IS 2502	Code of practice for bending and fixing of bars for concrete reinforcement.
15.	IS 2751	Code of practice for welding of MS Bars.
16.	IS 3696	Safety Code of scaffolds and ladders:
	Part I	Scaffolds
	Part 2	Ladders
17.	IS 4014	Code of practice for steel (Part 1 & 2) tubular scaffolding
18.	IS 4082	Recommendation on stacking and storage of construction materials at site.
19.	IS 5525	Recommendation for detailing of reinforcement in RCC work.
20.	IS 9417	Recommendation for welding cold worked

		steel bars for reinforced concrete construction.
21.	IS 10790	Method of sampling of steel for priestesses and reinforced concrete.

FORM WORK

1.0 GENERAL

1.1 Standards

Work shall be carried out to Indian Standards and Code of Practices. In absence International Standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies/conflict noticed shall be directed to the Incharge for his direction/approval. However as a general rule more stringent specification shall take precedence.

1.	IS 303	Specification for plywood for general purpose.
2.	IS 456	Code of practice for construction and design of reinforced concrete.
3.	IS 2751	Code of practice for welding of M.S bars used for RCC
4.	IS 3696	Safety Code of scaffolds and ladders :
	Part 1	Scaffolds
	Part 2	Ladders
5.	IS 4014	Code of practice for steel (part 1 & 2) tubular scaffolding
6.	IS 4082	Recommendation on stacking and storage of construction materials

7.	IS 8989	Safety code of erection of concrete formed structures

1.2 Quality assurance

Contractor shall assume and take upon himself to

BLOCK WORK- CONSTRUCTION PRACTICE

1. General

1.1. Introduction

Blocks are either hollow or solid. Generally they are of light weight compared to bricks. Concrete blocks to IS: 2185 (Part 1)-1979 may be used for both load bearing and non-load bearing walls. The wall thickness will vary.

For high thermal insulation, cavity walls having inner leaf of light weight concrete blocks to IS: 2185 (Part 2)-1983 may be used. Each leaf of cavity shall not be less than 100 mm.

Autoclave cellular concrete blocks to IS: 2185 (Part 3)-1984 shall not be used for foundations and for masonry below damp-proof course.

2. Mortars

2.1. Hollow concrete blocks:

Hollow concrete blocks shall be embedded with a mortar which is relatively weaker than the mix used for making blocks in order to avoid formation of cracks. A rich or strong mortar tends to make a wall too rigid thus localizing the effects of movements due to temperature and moisture variations, resulting in cracking of blocks. The recommended proportion of mortar measured by volume is given in Table 1

Table 7 Mix Proportion of mortar for hollow concrete blocks

Sl No	Type of work	Normal masonry (Cement:Lime: Masonry	Reinforced (Cement: Sand)

		Sand)	
1.	Normal work	1 : 1 : 9 to 10	1 : 7 to 8
2.	Exposed to severe conditions; high intensity of loads; plasters; heavily loaded lintels and beams.	1 : 1 : 6 to 7	1 : 4 to 5
3.	Partitions of 10 cm	1 : 1 : 7 to 8	1 : 5 to 6

Note: All mortars shall have a slump of 75 mm.

2.2. Light weight blocks - Light weight blocks shall be embedded with a mortar mix, the strength of which is lower than mix for making blocks, to avoid formation of cracks. A 1:2:9 cement, lime, sand mortar may generally be used; for high intensity of load it shall be 1:1:6. Autoclaved blocks shall be embedded in mortar as specified in Table 1

3. Concrete

3.1. Concrete used for filling hollow concrete block masonry when reinforced shall be 1 cement, 2 ½ sand and 3 coarse aggregate of size ranging from 4.75 mm to 10 mm. The water cement ratio shall not exceed 0.6. When cells exceed, 100 mm on the narrower side, the proportion of mix shall be 1of cement, 2 ½ of sand and 3 ½ of coarse aggregate for reinforced concrete and 1:3:6 plain concrete.

4. Thickness

4.1. For load bearing masonry built with hollow concrete blocks, the thickness of walls shall not be less than the values as obtained from IS: 1905-1987.

4.2. Light weight block in load bearing masonry for external walls in framed construction shall not be less than 200 mm. However, if they are suitably braced by lateral or vertical supports, the

thickness can be 100 mm. Non-load bearing hollow block walls shall be not less than 100 mm.

4.3. Autoclaved block walls in framed construction shall also be as per above; except that for load bearing work, the minimum thickness shall be 200 mm; however it can be reduced to 150 mm if properly braced.

5. Lateral supports

Walls made of blocks shall have vertical or horizontal lateral supports at right angles to the face of the wall. Cross walls, plasters or buttress walls shall provide the lateral support.

6. Avoidance of crack formation

6.1. General

The major cracks in the walls or partitions in a structure constructed with blocks, whether they are of hollow of cellular types can be prevented. The preventive measures to be undertaken are covered.

6.1.1. Structural movements

Cracks may arise from alterations in length, the curvature or orientation due to load settlement, thermal expansion or changes in moisture content.

In the case of framed structures, erection of partitions and panel walls shall be delayed wherever possible until the frame has taken up, as much as possible, any deformation occurring due to structural movements.

a) **Floor deformation and movement – The floor upon which a partition is built may deflect under load brought on it after the partition is built. Such deflections tend to create a non-continuous bearing for the block leading to cracks in the partition. This can be avoided by embedding wires of 3 mm diameter of mild steel or galvanized steel or welded wire mesh strip in bed joints in cement mortar 1:2 after every 900 mm to 1200 mm height.**

b) **Ceiling deflection and movement – A ceiling above a partition will may deflect under loads applied after its erection or through thermal or other movements. To avoid cracking as a result of such deflection, the partition wall shall be separated from the ceiling by a gap or by a layer of resilient material or lean mortar. When this cannot be done as in the case of plastered finishes, the risk of cracking may be reduced by forming a cut between the ceiling plaster and the wall plaster.**

c) **Deflection or movement of structural abutments – The walls, columns or other structural elements against which the wall or partition abut, may deflect or move because of load, settlement, shrinkage or thermal effects. In order to avoid cracking of walls or partitions as a result of such movements, a slip joint shall be provided where possible, preferably packed with a resilient mortar or lean mortar.**

d) **Cracks in partition walls may occur at corners of door and window frames at lintel level or sill level. It may therefore be desirable to provide a nominal reinforced concrete band beam (see Fig. 1) at sill level and vertical reinforced concrete stud at either side of vertical members of frames which may in addition provide sufficient anchorage for hold fast.**

6.1.2. Control of wall movements accompanying temperature and moisture changes Cracking in concrete masonry walls is often due to tensile stresses which develop when wall movements accompanying temperature and moisture change are restrained by other elements of the building or when concrete masonry places restraint on the movement of adjoining elements.

There are three methods of controlling cracking in concrete masonry structures :

(1). Specifying a limit on the moisture content of masonry units at the time of delivery and construction;

(2) Incorporating steel reinforcement either in the form of nominal bond beams or horizontal joint reinforcement and,

(3) Providing control joints to accommodate the movement of masonry. In all concrete masonry construction, it is essential to employ only moisture controlled units. Their use, combined with the provision of control joints is generally adequate to prevent cracking in concrete masonry walls. However, bond beams or joint reinforcement, or both in different locations as considered suitable may also be used in addition to the above.

6.1.3. Nominal bond beams - Bond beams, the use of which as structural members have been referred shall also serve as a means to crack control. Normal bond beams shall be built in the same manner as the structural bond beams with a minimum reinforcement of two 8 mm mild steel bars or two 6 mm dia high strength deformed bars. Their value for this purpose is due to increased strength and stiffness they provide to a masonry wall. As a means of crack control, the area of influence of bond beam shall generally be assumed to be extending 600 mm above and below its location in the wall. In walls without openings, they shall be placed at 1200 mm apart and may be of any length up to a maximum of 18 m (see Table 2).See Fig. 1.

Nominal bond beams shall be discontinuous at control joints, but practice here varies depending on the structural requirements. Dummy joints shall be formed when a bond beam is continuous at a control joint.

6.1.4. Joint reinforcement - Horizontal joint reinforcement serves much the same purpose as bond beams in crack control. It increases stresses to cracking. Due to closer spacing adopted, joint reinforcement may be more effective in crack control than bond beams.

a) Joint reinforcement shall be preferably be fabricated from galvanized steel to IS 280:1978 and shall consist of two or more smooth or deformed longitudinal wires 3 mm dia or larger weld connected with 2.8 mm dia or larger cross wires. The out-to-out spacing of longitudinal wires shall be 30 mm less than the width of masonry skills. Cross wires shall be welded at a pacing of 150 mm for smooth wires and 400 mm for deformed wires. Where

splice in wires is necessary, it shall be lapped to a length of at least 300 mm.

b) The reinforcement shall be embedded in horizontal joints at intervals of 900 mm to 1200 mm depending on panel length, height and the number and type of wall openings. (See Table -2)

c) Joint reinforcement shall be used in conjunction with cement mortar not weaker than 1:2 mixes. In walls exposed to action of weather, the reinforcement shall have a mortar cover of not less than 15 mm.

d) Notwithstanding the above, location of joint reinforcement shall be as follows :

1) Place the joint reinforcement in the first and second bed joints immediately above and below wall openings ;

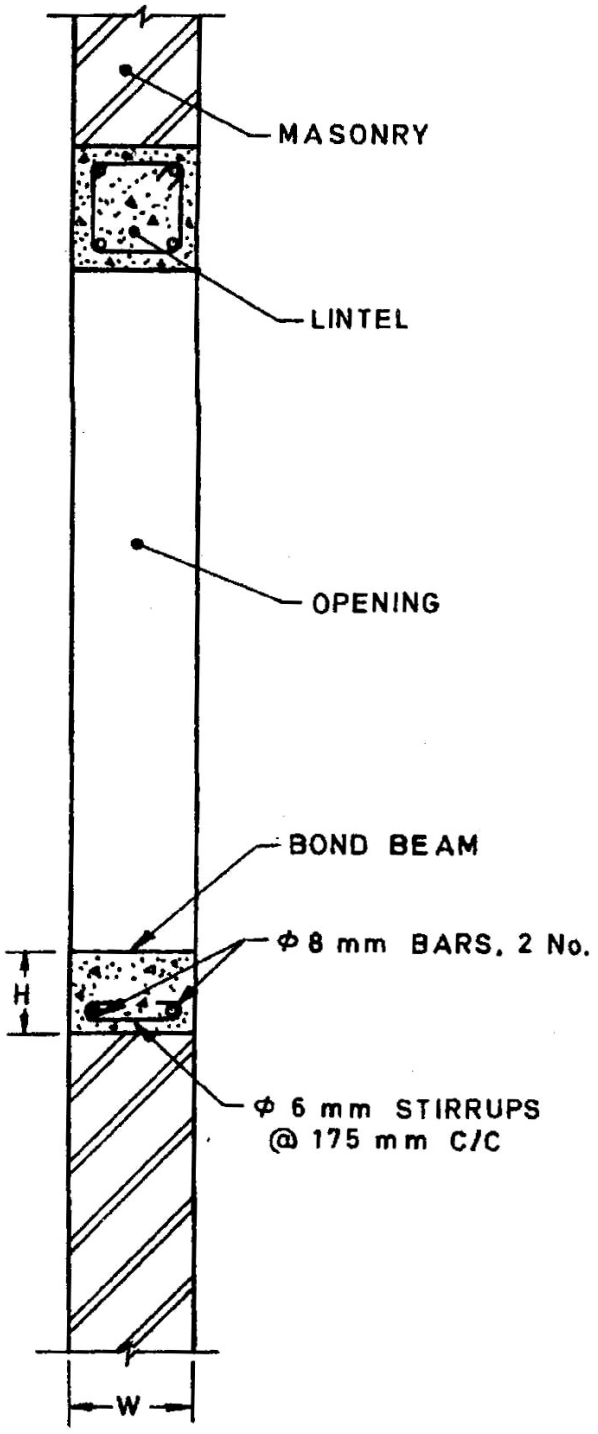
2) It shall not extend less than 600 mm beyond the openings to end of the panel whichever is smaller ;

3) Place joint reinforcement within two or three courses immediately below the top of the wall ;

4) Joint reinforcement shall not be located closer to a bond beam than 600 mm ; and

5) Joint reinforcement shall be interrupted at control joints.

Notes: (1) When bond beams spaced at 1200 mm are used in place of joint reinforcement, control joints shall be spaced at 18 m. (2) Where reinforcement has not been provided, the ratio L / H of wall panel shall conform to IS: 1905-(1987)



$H \nless 80$ mm

$W \times H \nless 1\,200$ mm^2

Fig. 1 Nominal reinforced concrete bond beam at sill level

Table 2: Recommended length top height ratios for concrete block masonry

Sl	Wall panel	Vertical spacing of joint

No		reinforcement		
		900 mm	1000 mm	1200 mm
1	Length of panel (L) Irrespective of height (H) Max.	18 m	15 m	12 m
2	Ratio L/H, Max			
a)	200 mm thick wall	3.0	2.75	2.50
b)	300 mm thick wall	2.25	2.00	1.75

6.1.5. Control joints - Control joints are employed to reduce restraint by accommodating movement of masonry wall or movement of structural elements adjacent to the wall, and thus to control cracking. They are in fact vertical separations built into the wall at locations where cracking is likely due to excessive horizontal stresses. The spacing along the wall length depends upon:

(a) Expected movements of the wall and other elements

(b). Resistance of the wall to horizontal stresses

(c) The extent and location in the wall of doors, windows, recesses, chases and other causes of stress concentration. Some typical methods of control joints are shown in Fig 2 and Fig. 3.

6.2. Bonded beams and studs used on structural members

6.2.1. Reinforced concrete structural bond beams may be used in concrete block masonry to meet the requirements of unusual stress conditions. Examples are as below:

a) In buildings in earth-quake regions ;

b) In buildings in areas where severe wind storms occur ;

c) In buildings in areas where unfavorable soil movements and soil subsidence occur ; and

d) In buildings where walls are subjected to excessive vibration or to heavy loads.

In all such cases, it is necessary to provide more than nominal stability for all types of masonry walls.

6.2.2. Bond beams shall be built integrally with block masonry or with special U-shaped lintel blocks slung together with reinforcing steel placed in the core of hollow of blocks filled with M15 concrete. The reinforcement shall conform to IS: 456-2000; but in no case shall be less than two

12 mm dia mild steel bars. The beams are discontinuous at control joints; but the joints should be designed to transfer forces along the wall.

6.2.3. Bond beams may be provided at any of the following locations depending on the conditions as described in 6.2.1

(a) At floor level; (b) At top of all door and window openings (in which case they serve as lintels over them); (c) Below the sill in all window openings and (d) At plinth level.

6.2.4. Apart from the horizontal bond beams, vertical reinforced concrete studs may also be provided at corners, at wall openings and at regular intervals between wall openings. The studs shall be tied in with bond beams.

Non-structural use of bond beams is already covered 6.1.3

7. Preparatory works

Wetting of blocks

7.1. The blocks need not be wetted before or during the laying of the blocks. In case the climatic conditions so require, the top and sides of the blocks may be slightly moisture so as to prevent absorption of water from the mortar and ensure development of the required bond with the mortar.

7.2. Scaffolding - Scaffolding shall be on the same lines as brickwork, suitably modified where necessary.

8. Laying of Concrete Blocks

8.1. First Course - The first course of concrete block shall be laid with great care, making sure that it is properly leveled, aligned and plumbed, to assist in obtaining a straight and truly vertical wall. Before laying the first course, the alignment of the wall shall be marked on the d. p.c. The blocks for this course shall be laid dry, that is, without mortar along a string stretched between properly located corners of the wall in order to determine the correct position of blocks including those of the cross walls jointing it and also adjust their spacing. When the blocks are in proper position, the two corner blocks shall be removed, a mortar bed spread and these blocks re-laid back in place truly level and plumb. The string shall then be stretched tightly along the faces of two corner blocks and the faces of the intermediate blocks adjusted to coincide with the line. Thereafter each block shall be removed and re-laid over a bed of mortar. After every three or four blocks are laid the correct alignment and vertically be checked.

8.2. Construction - The construction of walls may be started either at the corners first or started from one end proceeding to the other end.

If the corners are built first, they shall be built four or five courses higher than the centre of the wall. As each course is laid at the centre, it shall be checked for alignment and level and for being plumb. Each block shall be carefully checked for alignment with a straight –edge to make sure that the faces of the blocks are in the same plane.

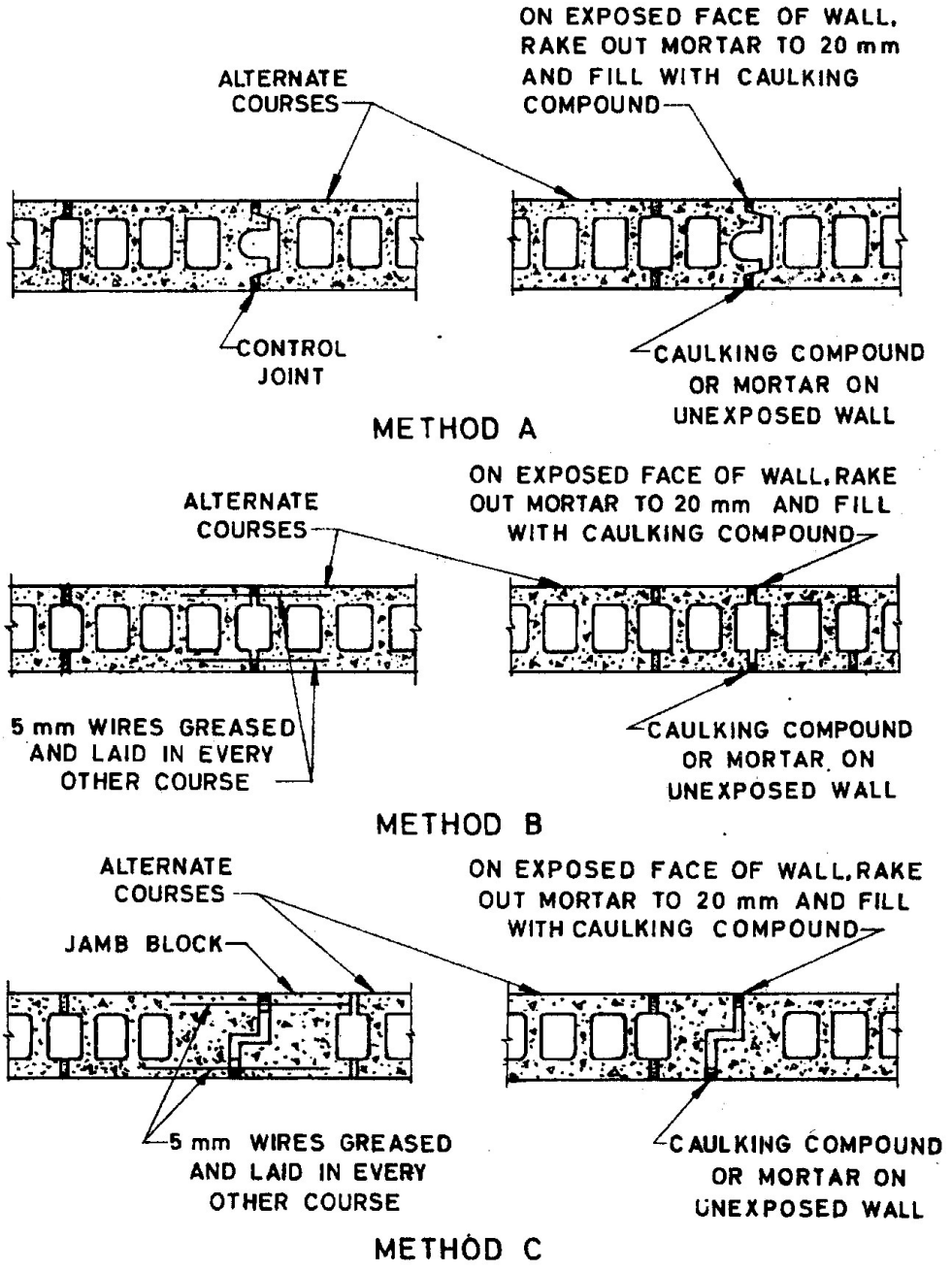

ON EXPOSED FACE OF WALL, RAKE OUT MORTAR TO 20 mm AND FILL WITH CAULKING COMPOUND
ALTERNATE COURSES
CONTROL JOINT
CAULKING COMPOUND OR MORTAR ON UNEXPOSED WALL
METHOD A
ON EXPOSED FACE OF WALL, RAKE OUT MORTAR TO 20 mm AND FILL WITH CAULKING COMPOUND
ALTERNATE COURSES
5 mm WIRES GREASED AND LAID IN EVERY OTHER COURSE
CAULKING COMPOUND OR MORTAR ON UNEXPOSED WALL
METHOD B
ALTERNATE COURSES
ON EXPOSED FACE OF WALL, RAKE OUT MORTAR TO 20 mm AND FILL WITH CAULKING COMPOUND
JAMB BLOCK
5 mm WIRES GREASED AND LAID IN EVERY OTHER COURSE
CAULKING COMPOUND OR MORTAR ON UNEXPOSED WALL
METHOD C

Fig. 2 – Control joints in concrete block masonry construction

8.2.1. Each course, in building the corners, shall be stepped back by a half-trick and the horizontal spacing of block shall be checked by placing a mason's level diagonally across the corners of the blocks. A storey rod or course pole, suitably marked provides an accurate method of finding the top of the masonry for each course.

8.2.2. When filling in the wall between corners, a mason's line shall be stretched from corner to corner for each course and the

top outside edge shall be laid true to this line. The manner of handling or gripping the block shall be such as to position the block properly with minimum adjustment.

8.2.3. To ensure satisfactory bond, mortal shall not be spread too far ahead of actual laying of the block as it will stiffen and lose its plasticity. As each block is laid, excess mortar extruding from the Joints shall be cut off with a trowel and thrown back on the mortar board to be reworked into fresh mortar. If the work is proceeding rapidly, the extruded mortar cut from the joints may be applied to vertical face shells of the blocks just laid. If there be any delay long enough for the mortar to stiffen on the block, the mortar shall be removed to the mortar board and reworked. Dead mortar that has been picked up from the scaffold or from the floor shall not be used.

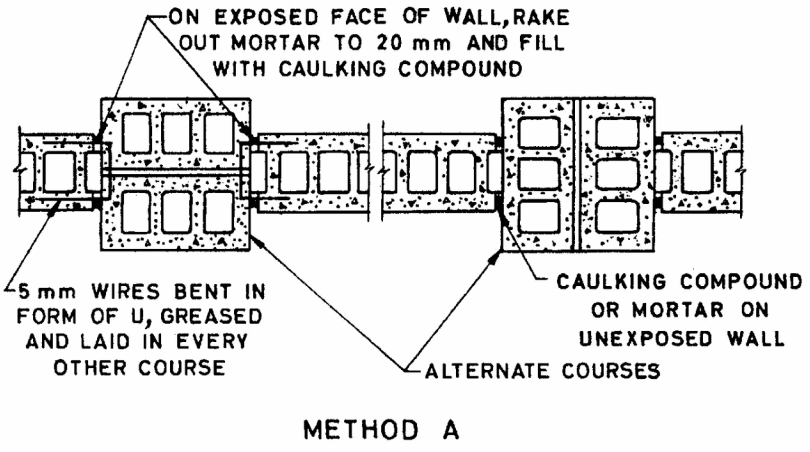

ON EXPOSED FACE OF WALL, RAKE OUT MORTAR TO 20 mm AND FILL WITH CAULKING COMPOUND
5 mm WIRES BENT IN FORM OF U, GREASED AND LAID IN EVERY OTHER COURSE
CAULKING COMPOUND OR MORTAR ON UNEXPOSED WALL
ALTERNATE COURSES
METHOD A

Fig. 3

8.3. Closure block - When installing a closure block, all edges of the openings and all four edges of the closure block shall be buttered with mortar.

The closure block shall be carefully lowered into place. If any mortar falls leaving an open joint, the closure block shall be removed, fresh mortar applied and the operation repeated.

9.1. Door and window frames shall be attached to the surrounding masonry either by conventional method or by 200 mm flooring nails with screwed ends fixed directly into the block, after the frame has been edged into the opening at every nailing position. The number of nails depends on the dimensions of the frames. The nails shall be spaced at a maximum of 400 mm apart and the first nail shall not be farther than 200 mm from the corner.

Frames may be attached to the masonry by holdfasts anchored in the vertical reinforced concrete studs provided to the frames.

9. Provision for door and window frames

10. Provision for roof

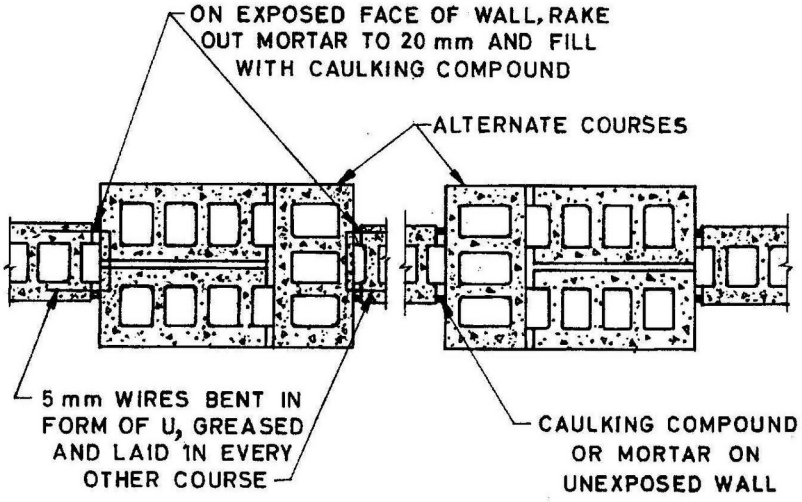
10.1. The top of the roof course shall be finished smooth with a thin layer of 1:3 cement mortars and covered with a coat of crude oil or craft paper or oil paper to ensure free movement of the roof.

11. Intersecting wall

11.1. Load bearing walls - When two load bearing walls intersect and courses are to be laid up at the same time, a true masonry bond between 50 per cent of the units at the intersection is necessary. When such walls are laid up separately, pockets with maximum 200 mm vertical spacing shall be left in the first wall laid. The corresponding course of the second wall shall be built in to these pockets.

11.2. For non-load bearing walls same bonding methods as for load bearing walls may be used.

12. Renderings and other finishes - All finishes shall be as specified in Section 12 Finishing Work, as the case may be.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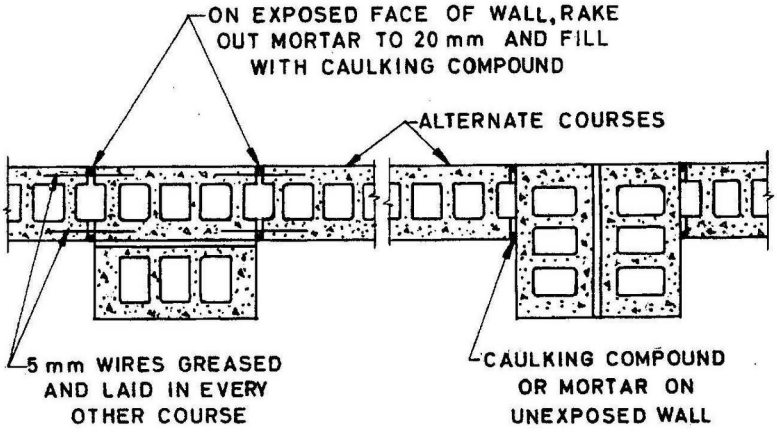
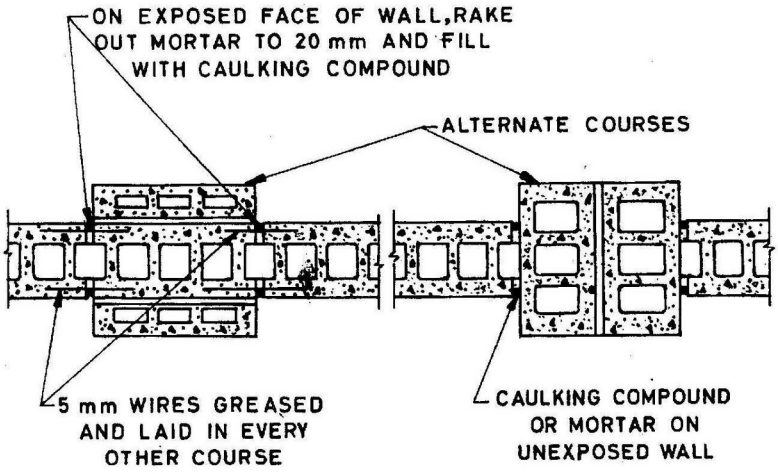
CAULKING COMPOUND OR MORTAR ON UNEXPOSED WALL

METHOD B

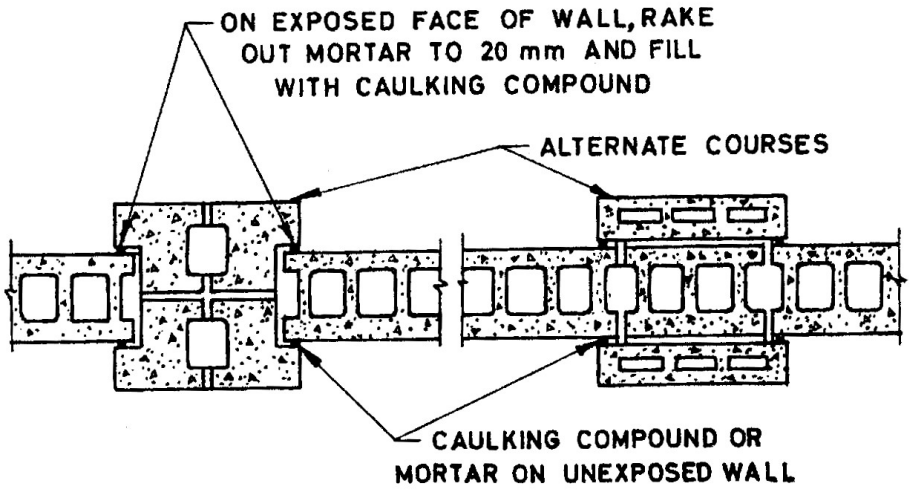

ON EXPOSED FACE OF WALL, RAKE OUT MORTAR TO 20 mm AND FILL WITH CAULKING COMPOUND
ALTERNATE COURSES
5 mm WIRES GREASED AND LAID IN EVERY OTHER COURSE
CAULKING COMPOUND OR MORTAR ON UNEXPOSED WALL

METHOD C

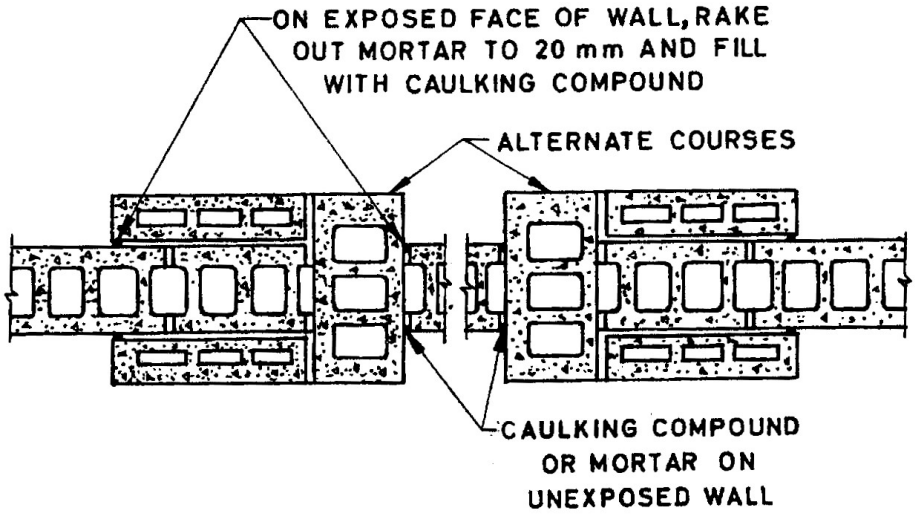

ON EXPOSED FACE OF WALL, RAKE OUT MORTAR TO 20 mm AND FILL WITH CAULKING COMPOUND
ALTERNATE COURSES
5 mm WIRES GREASED AND LAID IN EVERY OTHER COURSE
CAULKING COMPOUND OR MORTAR ON UNEXPOSED WALL

METHOD D

Fig. 3


ON EXPOSED FACE OF WALL, RAKE
OUT MORTAR TO 20 mm AND FILL
WITH CAULKING COMPOUND
ALTERNATE COURSES
CAULKING COMPOUND OR
MORTAR ON UNEXPOSED WALL

METHOD E



METHOD F

Fig. 3 – Plasters with control joints in concrete block masonry construction

Annexure 5-A.2

CONSTRUCTION PRACTICES OF IN-SITU WALLS WITH SOIL CEMENT

1. General

1.1. This type of in-situ construction with soil cement shall be limited to single storey construction with a wall height not

exceeding 3.2 mm and a minimum wall thickness of 300 mm for load bearing and 200 mm for non-load bearing walls.

1.2. The procedure described herein may also be followed for rammed in-situ wall construction with unstabilized soil, provided the surfaces of the wall are protected by a waterproof mud plaster.

2. Soil

2.1. Raw soil used for soil cement shall be free from deleterious contents, such as organic matter of vegetable origin, mica, etc. Black cotton soil may not be used from economy considerations.

Soil shall conform to the following requirements:

Sand content, percent by mass	**35, min**
Plasticity index, percent	**8.5 to 10.5**
Total soluble salts, percent by mass	**1, max**
Sodium salts, percent by mass	**0.1, max**
Liquid limit, percent	**27, max**

Note: Sand content is the fraction of sand of the soil that passes 425 micron is retained on 75 microns IS sieve. More than half the material is smaller than 75 micron by mass.

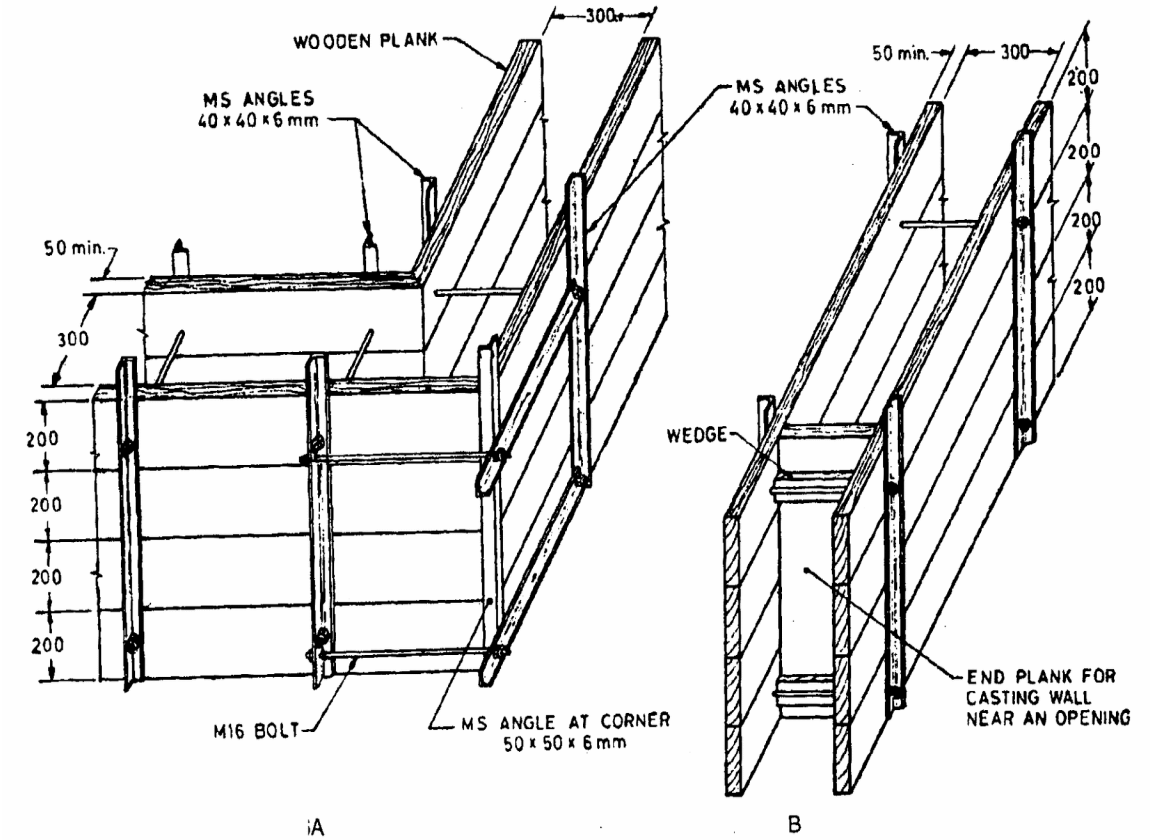
2.2. Soil shall be prepared as per IS 2110: 1980. Cement shall be mixed in proportions as given below:-

(a)For construction of walls 2.5 to 3.5 per cent by mass of dry soil depending on the density to be obtained. For construction of walls below plinth level and for copings. 5 to 7.5 per cent by mass of dry soil, so that the crushing strength of blocks mate shall not be less than 1.4 N/mm2 (14 kg/cm2) for dry condition.

For calculation purposes the unit weight of dry soil shall be taken as 1 300 kg/m3. Properties of soil cement shall be as in IS 2110: 1980.

2.3. Preparatory work:

2.3.1. Shuttering - Any timber planks suitable in local practice may be used for shuttering. The planks shall not be less than 200



mm in width and 50 mm in thickness. A typical arrangement is shown in Fig. 4

Fig. 4 – Typical details of shuttering for 300 mm thick wall

Note: If the thickness of the wall is greater than 300 mm, shuttering details will have to be suitably modified. The shuttering shall generally be in lengths ranging from 1.8 m to 3.3 m. The height of the shuttering for one lift shall be about 600 mm clear for casting the wall plus 200 mm for holding on to the portion of the compacted wall below in the previous lift. The shuttering may be lifted immediately after first lift is well compacted and the shuttering for next lift arranged.

3. Wall constructions

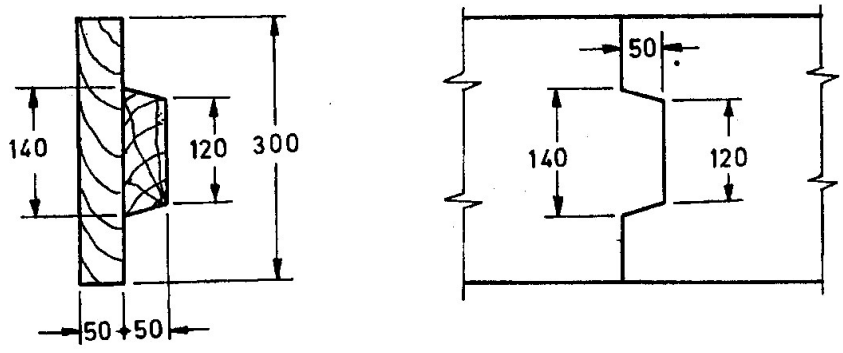
3.1. Preparation of soil - After the shuttering is erected, the moist stabilized soil shall be poured into the shuttering in layers of 75

mm at a time. The layer shall be uniform in depth. To control his depth, templates may be used.

3.2. Compaction - Compaction shall be done by iron rammers. Compaction shall be started at the side and worked inwards. Ramming of the sides shall be evenly distributed to avoid tilting of the shuttering. Verticality of the shuttering shall be checked as compaction proceeds.

3.3. Curing - The walls shall be cured for 15 days after removal of shuttering. Curing shall be done by slight sprinkling of water at regular intervals.

3.4. Joints - Vertical joints shall be provided at a spacing of not more than 2 m apart. Vertical joint shall be staggered. Fig. 5 gives details of joint.



A Section of Plank Used for Making Vertical Joint

B Plan of Vertical Tongue and Groove Joint

All dimensions in millimetres.

Fig. 5 – Typical details of construction joints in in-situ of the soil, cement walls of 300 mm thickness

Horizontal joints shall be formed by finishing smooth the rammed surface at the end of each lift.

3.5. Fixing frames - Frames for door and windows shall be fixed by iron hold fasts inserted in the wall before-hand.

3.6. Bearing of roof - Where light roof frame work is to rest on the wall, the portion of the wall directly below it shall be built with bricks laid in cement mortar 1:6 for a depth of 150 mm; or bricks

made out of 7.5 per cent soil cement. Beams shall rest on cement concrete bed plates. Trusses or flat roofs shall rest on brick bearing course to a depth of 150 mm laid in cement mortar 1:6.

3.7. Lintels - Reinforced brick or cement concrete lintels may be used. The space above the lintels shall be filled either with soil cement rammed in-situ, or precast soil cement blocks laid in cement in mortar mix 1:6.

3.8. Parapet - The parapet shall be of brick work. A drip course shall be provided to drain rain water from parapet and away from the lower portions of the walls on to the roof surface. The plaster finish of the roof shall be continued from the roof surface right up to the drip course in the parapet.

3.9. Plastering - Cement plaster of mix hot leaner than 1:5 shall be used. It shall be applied after drying the wall for four weeks at least. The wall surface shall be given a neat cement wash before applying plaster.

4. Preparation of mud plaster:-

4.1. Add cutback bitumen to IS 217: 1988, grade 80/100 to mud with BHUSA which is allowed to rot for a week. About 60 kg of 'Bhusa' should be added to a cubic meter of mud. Bitumen should be around 40 kg/m3 of soil used.

4.2. Surfaces to be plastered shall be moistened before application of mud plaster.

SECTION – IV

PLASTERING WORK

1.0 INDIAN STANDARDS

Work shall be carried out as per the latest issue of Indian Standards and Code of Practices. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies/ conflict noticed shall be directed to the In-charge /Employer for direction/approval. However as a general rule more stringent specification shall take precedence.

1. IS 383 Specification for coarse and fine aggregates for natural sources for concrete.
2. IS 412 Specifications for expanded metal steel sheets for general purposes.
3. IS 1542 Specifications for sand for plaster
4. IS 1661 Code of practice for application of cement and cement lime plaster finishes.
5. IS 2402 Code of practice for external rendered finishes
6. IS 2645 Specifications for integral cement water proofing compound
7. IS 8112 Specification for 43 grade OPC.
8. SP 27 Handbook of method of measurement of building works.

2.0 MATERIALS

2.1 Cement

2.1.1 Cement shall be ordinary Cement conforming to IS and of grade 43.

2.2 Water

2.2.1 Water used for mixing and curing shall be clean, reasonably clear and free from objectionable quantities of silt, oils, alkalis, acids, salts so as not to weaken mortar.

2.2.2 Water tested shall be in accordance with IS 3025. Maximum permissible limits of deleterious materials in water as given in IS 456 are reproduced for ready reference in table 1 of IS 456.

2.3 Sand (coarse sand FM above 2.25 & Fine sand F M more than 1.25) shall conform to IS 1542 specification for sand for plaster. For white or coloured renderings, only quartz or silica sand shall e used. For textured finishes produced by treatment of freshly applied final or finishing coat with a tool coarser, particles used shall be screened through 3.35 mm IS sieve or 2.36 mm IS sieve. For torn texture a slightly larger portion of material coarser than 4.75 mm IS sieve shall be used.

2.4 Aggregate shall conform to IS 383.

2.5.1 Integral water proofing compound shall conform to IS 2645 (specification for integral water proofing compound).

2.6 GI Chicken Mesh

GI Chicken mesh of 20 gauge as approved shall be used over junctions of concrete and masonry or two dissimilar materials about 150mm wide fixed with GI wire nails etc. as directed by the Incharge.

Precaution - Any cracks which appear in the surface and all portions which sound hollow when lapped, or are found to be soft or otherwise defective, shall be cut out in rectangular shape and redone as directed by the engineer.

i) When ceiling plaster is done, it shall be finished to chamfered edge at an angle at its junction with a suitably tool when plaster is being done. Similarly when the wall plaster is being done, it shall be kept separate from the ceiling plaster by a thin straight groove not deeper than 6 mm drawn with any suitable method with the wall while the plaster is green.

ii) To prevent surface cracks appearing between junctions of column/ beam and walls, 150 mm wide chicken wire mesh should be fixed with U nails 150 mm centre to centre before plastering the junction. The plastering of walls and beam/column in one vertical plane should be carried out in one go. For providing and fixing chicken wire mesh with U nails payment shall be made separately.

3. MORTARS

3.0.1 Mortars shall be prepared by mixing fine graded aggregate with cement, the lime or a combination of these in the proportion specified for respective items of work as detailed in the BOQ. Mixing or mortars shall be done by mechanical mixers only. Hand mixing may be permitted in specified cases on the written permission of the Incharge

3.0.2 Mortars shall be specified by proportion only and not by strength. Volumetric mixing shall be based on dry volumes of each ingredient. For convenience, measurement shall correspond to volume of one cement bag i.e. 0.035 cu m. Boxes shall be of size 40 x 35 x 25 cm. These shall be marked as mortar mixing boxes by red paint and shall be used throughout the contract. Hand mixing or mechanical mixing proportions shall be done with the use of these boxes.

3.1 Cement mortar

3.1.1 Cement mortar shall be prepared by mixing cement and sand in specified proportions. Proportioning shall be carried out as detailed above and shall be added suitably to allow for bulkage if required. Bulkage shall be determined as specified in IS 2386 Part III. Cement and sand added to mixer shall be thoroughly mixed and water shall be added to it gradually. After addition of water the mixer shall run for a minimum of 3 minutes. The mortar mixed shall be consumed within 30 minutes of its mixing.

4.0 WORKMANSHIP

Work shall be carried out as per recommendations of code of practices IS 1661 and IS 2402.

4.1 Preparation of mortar mix

4.1.1 The material used in preparation of plastering mixes shall be measured by volume using gauge – boxes or by weight.

4.1.2 When cement is measured by weight, 1440 kg of material shall be taken equivalent to one cubic meter. p

4.2 Mixing

4.2.1 Mixing shall be done mechanically. Each mortar batch shall be used within half an hour. Hand mixing if permitted as special case shall be carried out on a clean, watertight platform. The mixing operation shall be continued with addition of necessary quantity of water until a uniform appearance and consistency of mortar is obtained.

4.2.2 Cement and sand shall be mixed dry in required proportion to obtain a uniform colour and water shall then be added to get the required consistency for the plaster.

4.3 Method of plastering:

4.3.1 Surface to be plastered must be clean and free from dust, loose material, oil, grease, mortar droppings, sticking of foreign matter, traces of algae, etc. It is very important to ensure that there should not be any chance of the plaster getting debonded due to presence of materials harmful for bonding.

4.3.2 Raking out of joints is expected to be carried out along with masonry but it should be checked thoroughly so as to receive good key.

4.3.3 Walls should be sufficiently damp prior to plastering. Water from plastering mortar must not be absorbed by masonry under any condition.

4.3.4 Any unavoidable projections in masonry and concrete surfaces shall be chiseled back. Care shall be taken that surrounding surfaces are not damaged and reinforcement is not exposed.

4.3.5 Thickness of one coat should not be more than 15 mm and less than 8 mm for single coat finished plaster.

4.3.6 In case of multi coat plaster, sufficient time shall be allowed for the undercoat to harden (cured, dried and shrunk properly) before subsequent coats are applied.

4.3.7 Undercoats shall be scratched or roughened before they are fully hardened to form a mechanical key.

4.3.8 The method of application is also important and hence it is recommended that the mix be thrown on the surface rather than stuck with trowel. This increases the adhesion.

4.3.9 Independent double legged scaffolding free of masonry shall be provided. Scaffolding should be rigid, allowing free and safe movement on the platform and it should be at sufficient distance or height from the working areas. Scaffolding with railing gives more confidence to workers and improves the quality of work.

4.3.10 Actual plastering shall be undertaken only on the approval of the Incharge. Plaster work should only follow the steps mentioned below:

a. Surface must be thoroughly cleaned.

b. Plaster area must be provided with level dabs or sports allowing working and checking with 2-3 m straight edge. Depth of plaster must not be less than 8 mm at any point.

c. Required concealing services must be completed and tested.

d. No further cutting of masonry must be required.

e. Repairs carried out to masonry or concealing work must be cured and dry.

f. Surface must be sufficiently damp.

g. Plaster dabs are checked for plumb and level by the Incharge or his representative.

h. Joints, concealing and repairing areas must be covered with 20 gauge GI chicken mesh as per the Incharge's instruction.

4.3.11 Corners, external or internal, shall be finished along with final coat. It is advisable to have rounded corners.

4.3.12 Plaster shall be cured for 14 days by wet curing except in neeru finish plaster. During this period plaster shall be protected from exposure to extremes of temperature and weather.

4.3.13 Plaster shall be leveled and lined by aluminium hollow section, 2-3 m long. (This will give even and leveled surface). There shall not be more than 2 mm difference in level when checked with 3 m straight edge. It is important that enough pressing and beating

is done to achieve compact filling of joints and that the area is fully compacted.

4.3.14 Finishing of plaster may be carried out with wooden float (rand has) or trowel led smooth with sheet metal trowels as specified. Care shall be taken to avoid excessive trowelling and overworking of the wooden float.

4.3.15 All corners, internal or external, shall be truly vertical or horizontal. These shall be finished with a proper template to achieve best workmanship for rounding and chamfering as specified or directed.

4.3.16 Plaster shall be cut to correct horizontal or vertical line at the end of the day or if work requires to be suspended for any reason.

4.3.17 It is advisable to limit the area of plaster to 15 sq. m. to avoid cracks due to thermal movements of dissimilar material in contact, it is advisable to provide joints treated with groove or any other detail as suggested. These joints, if not, specified shall be treated with 150 mm wide reinforcing chicken mesh (approved by the Incharge) fixed over joints by GI nails and the area plastered.

5.0 TYPE OF PLASTER

5.1 12 mm thick ordinary cement sand plaster

Single coat cement-sand plaster with cement-sand mix in proportion of 1:4 shall be carried out over the entire area as detailed above. This shall be finished just with wooden float to give the best smooth surface possible. This may be for internal or external areas. Thickness may be from 10 to 15 mm maximum or as specified in the item or drawing.

5.2 18 to 25 mm ordinary cement sand plaster

This is the same as for the 12 mm thick single coat plaster except that this shall be carried out in two coats. Maximum thickness of the undercoat shall be 12 mm and balance in the second finishing coat. All operations remain the same and are as detailed in Clause 3.0 of this section.

5.3 Cement finished plaster

This shall be carried out in the same manner as in Clause 5.1 and 5.2 of this section for specified thickness in single or double coat. Then it shall be finished uniformly over the entire area with a paste of neat cement when the plaster has just hardened and finished smooth with a steel trowel. It shall be worked over again to achieve a smooth leveled surface. Quantity of cement applied shall be about 1 kg/sqm.

5.4 Sand face plaster

5.4.1 This shall generally be carried out on the outside face and exposed area of masonry work and concrete work. It shall be of minimum 22 mm thickness and shall be in two coats (1st coat 16 mm and 2nd coat 6 mm). The coat shall be CM 1:4 (1 cement: 4 sand) mixed with water-proofing compound in proportion specified by the manufacturer by weight of cement and applied as usual and surface shall be keyed.

5.4.2 The second coat shall be applied after 7 to 10 days and shall be of CM 1:4 (1 cement : 4 sand). Mortar shall be mixed with slightly coarse sand. Mix shall be worked over with 3 m gauge or wooden float to achieve an uniform surface.

5.4.3 The surface shall be allowed to harden sufficiently for sponging operation. Sponging shall be done by dipping sponge in cement water and removing fine particles and exposing large sand particles. The movement of sponge shall be such that no parches develop nor excessive material is removed from the surface. There shall not be a difference of more than 7 mm when checked with a 2 m long straight edge.

5.5 Water proof plaster

The water proofing compound shall be mixed with dry cement in the proportion by weight as specified or recommended by the approved manufacturer of water proofing compound. Mixing should

be thoroughly well integrated with cement. Addition of water must not allow any slips of mixed cement.

The mix used, in general, shall be CM 1:4 (1 cement : 4 sand) and the balance application, curing, etc. remains the same as detailed above.

6.0 MEASUREMENT

6.1 Plaster work shall be measured in square meter to the second decimal place.

6.2 Thickness of plaster shall be the average depth of plaster as specified. But if extra thickness occurs due to bad quality of bricks, stones or blocks or due to bad workmanship, the repairs or extra thickness required to be carried out shall be at the cost of contractor.

6.3 a) Grooves, pattas in continuation of large areas or plaster areas shall be considered as part of the plaster and not measured separately.

b) Ceiling plaster, including ribbed beam slab shall be measured in square meters.

c) Beams and columns in continuation of masonry shall be measured in square meter.

6.4 Jambs, sills, coves, cornices, etc. shall be a part of plaster and no separate payment shall be made towards these items.

6.5 Deduction

a) Deduction for an opening in plaster shall not be for area less than 0.5 sq. m.

b) In case the opening area is 0.5 sq m. only 50% area shall be deducted from each face.

c) In case the width of door or window frames are equal to masonry, full area of opening shall be deducted.

d) In case of openings of area above 3 sqm each deduction shall be made for opening on each face and jambs, sifts, sills shall be measured.

6.6 Plaster to ceiling and walls shall be measured separately if specified in the BOQ.

7.0 RATE

7.1 Description of item in the BOQ. unless otherwise stated, includes, wherever necessary, conveyance and delivery handling, unloading, storing, fabrication, hoisting, all labour for finishing to required shape and size, setting, fitting and fixing in position, straight cutting and waste, return of packings and other incidental charges.

7.2 Preparation of surface shall be as approved by the Incharge.

7.3 Trimming off the projections on masonry shall be included in the price.

7.4 Scaffolding and working platform shall be included in the price.

7.5 Materials as detailed and as required to complete item as specified shall be included in the price.

7.6 Curing of plaster shall be included in the price.

7.7 Cleaning of adjacent areas, windows, door frames, etc. including masonry surface in exposed masonry work, shall be included in the price.

7.8 Forming grooves for joints between beams/columns and masonry etc. shall be included in the price. Any special treatment if detailed shall be measured separately as billed in BOQ.

7.9 Providing and fixing chicken mesh at junction of R.C.C., brick work, edges, corners, chiseled and repaired brick work prior to plaster over concealed conduit, etc. shall be as directed by the Incharge. It shall be considered as part of item and no separate charge will be payable.

SECTION 7:
DRAWINGS

SECTION 8:

BILL OF QUANTITIES

Note:
(1) Item for which no rate or price has been entered in will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities (refer: ITB Clause 11.2 and CC Clause 37.2).

(2) Unit rates and prices shall be quoted by the Tenderer in Indian Rupees.

(3) Where there is a discrepancy between the rate in figures and words, the lower of the two will govern. [ITT Clause 24.1(a)]

(4) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall govern [ITT Clause 24.1 (b)]

SECTION 9:
FORMAT OF BANK GUARANTEE FOR SECURITY DEPOSIT

To: _____ [name of Employer]
_____ [address of Employer]
WHEREAS _____ [name and address of Contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called "the Contract");
AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;
AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;
NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Rs._____ [amount of guarantee] Rupees_____ _____[in words], and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.
We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.
We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.
This guarantee shall be valid until 30 days from the date of expiry of the Defects Liability Period.
Signature and seal of the guarantor _____
Name of Bank _____
Address _____
Date _____

[63] An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract

[64] An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract